Extron® Electronics

INTERFACING, SWITCHING AND DISTRIBUTION

User's Manual

SW2 VGA DA2 A, SW2 VGA DA2 AF

2-Input Switchers with 2 Buffered Outputs and Audio

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Precautions

Safety Instructions • English

This symbol is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.

This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

Caution

Read Instructions • Read and understand all safety and operating instructions before using the equipment.

Retain Instructions • The safety instructions should be kept for future reference.

Follow Warnings • Follow all warnings and instructions marked on the equipment or in the user information.

Avoid Attachments • Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

Consignes de Sécurité • Français

Ce symbole sert à avertir l'utilisateur que la documentation fournie avec le matériel contient des instructions importantes concernant l'exploitation et la maintenance (réparation).

Ce symbole sert à avertir l'utilisateur de la présence dans le boîtier de l'appareil de tensions dangereuses non isolées posant des risques d'électrocution.

Attention

Lire les instructions • Prendre connaissance de toutes les consignes de sécurité et d'exploitation avant d'utiliser le matériel.

Conserver les instructions • Ranger les consignes de sécurité afin de pouvoir les consulter à l'avenir.

Respecter les avertissements • Observer tous les avertissements et consignes marqués sur le matériel ou présentés dans la documentation utilisateur.

Eviter les pièces de fixation • Ne pas utiliser de pièces de fixation ni d'outils non recommandés par le fabricant du matériel car cela risquerait de poser certains dangers.

Sicherheitsanleitungen • Deutsch

Dieses Symbol soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.

Dieses Symbol soll den Benutzer darauf aufmerksam machen, daß im Inneren des Gehäuses dieses Produktes gefährliche Spannungen, die nicht isoliert sind und die einen elektrischen Schock verursachen können, herrschen.

Achtung

Lesen der Anleitungen • Bevor Sie das Gerät zum ersten Mal verwenden, sollten Sie alle Sicherheits-und Bedienungsanleitungen genau durchlesen und verstehen.

Aufbewahren der Anleitungen • Die Hinweise zur elektrischen Sicherheit des Produktes sollten Sie aufbewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.

Befolgen der Warnhinweise • Befolgen Sie alle Warnhinweise und Anleitungen auf dem Gerät oder in der Benutzerdokumentation.

Keine Zusatzgeräte • Verwenden Sie keine Werkzeuge oder Zusatzgeräte, die nicht ausdrücklich vom Hersteller empfohlen wurden, da diese eine Gefahrenquelle darstellen können.

Instrucciones de seguridad • Español

Este símbolo se utiliza para advertir al usuario sobre instrucciones importantes de operación y mantenimiento (o cambio de partes) que se desean destacar en el contenido de la documentación suministrada con los equipos.

Este símbolo se utiliza para advertir al usuario sobre la presencia de elementos con voltaje peligroso sin protección aislante, que puedan encontrarse dentro de la caja o alojamiento del producto, y que puedan representar riesgo de electrocución.

Precaucion

Leer las instrucciones • Leer y analizar todas las instrucciones de operación y seguridad, antes de usar el equipo.

Conservar las instrucciones • Conservar las instrucciones de seguridad para futura consulta.

Obedecer las advertencias • Todas las advertencias e instrucciones marcadas en el equipo o en la documentación del usuario, deben ser obedecidas.

Evitar el uso de accesorios • No usar herramientas o accesorios que no sean especificamente recomendados por el fabricante, ya que podrian implicar riesgos.

Warning

Power sources • This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.

Power disconnection • To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

Power cord protection • Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.

Servicing • Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

Slots and openings • If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.

Lithium battery • There is a danger of explosion if battery is incorrectly replaced. Replace it only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Avertissement

Alimentations • Ne faire fonctionner ce matériel qu'avec la source d'alimentation indiquée sur l'appareil. Ce matériel doit être utilisé avec une alimentation principale comportant un fil de terre (neutre). Le troisième contact (de mise à la terre) constitue un dispositif de sécurité : n'essayez pas de le contourner ni de la désactiver.

Déconnexion de l'alimentation • Pour mettre le matériel hors tension sans danger, déconnectez tous les cordons d'alimentation de l'arrière de l'appareil ou du module d'alimentation de bureau (s'il est amovible) ou encore de la prise secteur.

Protection du cordon d'alimentation • Acheminer les cordons d'alimentation de manière à ce que personne ne risque de marcher dessus et à ce qu'ils ne soient pas écrasés ou pincés par des objets.

Réparation-maintenance • Faire exécuter toutes les interventions de réparation-maintenance par un technicien qualifié. Aucun des éléments internes ne peut être réparé par l'utilisateur. Afin d'éviter tout danger d'électrocution, l'utilisateur ne doit pas essayer de procéder lui-même à ces opérations car l'ouverture ou le retrait des couvercles risquent de l'exposer à de hautes tensions et autres dangers.

Fentes et orifices • Si le boîtier de l'appareil comporte des fentes ou des orifices, ceux-ci servent à empêcher les composants internes sensibles de surchauffer. Ces ouvertures ne doivent jamais être bloquées par des objets.

Lithium Batterie • Il a danger d'explosion s'Il y a remplacment incorrect de la batterie. Remplacer uniquement avec une batterie du meme type ou d'un ype equivalent recommande par le constructeur. Mettre au reut les batteries usagees conformement aux instructions du fabricant.

Vorsicht

Stromquellen • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden. Dieses Gerät wurde für eine Verwendung mit einer Hauptstromleitung mit einem geerdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdanschluß, und stellt eine Sicherheitsfunktion dar. Diese sollte nicht umgangen oder außer Betrieb gesetzt werden.

Stromunterbrechung • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzkabel aus der Rückseite des Gerätes, aus der externen Stomversorgung (falls diese möglich ist) oder aus der Wandsteckdose ziehen.

Schutz des Netzkabels • Netzkabel sollten stets so verlegt werden, daß sie nicht im Weg liegen und niemand darauf treten kann oder Objekte darauf- oder unmittelbar dagegengestellt werden können.

Wartung • Alle Wartungsmaßnahmen sollten nur von qualifiziertem Servicepersonal durchgeführt werden. Die internen Komponenten des Gerätes sind wartungsfrei. Zur Vermeidung eines elektrischen Schocks versuchen Sie in keinem Fall, dieses Gerät selbst öffnen, da beim Entfernen der Abdeckungen die Gefahr eines elektrischen Schlags und/oder andere Gefahren bestehen.

Schlitze und Öffnungen • Wenn das Gerät Schlitze oder Löcher im Gehäuse aufweist, dienen diese zur Vermeidung einer Überhitzung der empfindlichen Teile im Inneren. Diese Öffnungen dürfen niemals von anderen Objekten blockiert werden.

Litium-Batterie • Explosionsgefahr, falls die Batterie nicht richtig ersetzt wird. Ersetzen Sie verbrauchte Batterien nur durch den gleichen oder einen vergleichbaren Batterietyp, der auch vom Hersteller empfohlen wird. Entsorgen Sie verbrauchte Batterien bitte gemäß den Herstelleranweisungen.

Advertencia

Alimentación eléctrica • Este equipo debe conectarse únicamente a la fuente/tipo de alimentación eléctrica indicada en el mismo. La alimentación eléctrica de este equipo debe provenir de un sistema de distribución general con conductor neutro a tierra. La tercera pata (puesta a tierra) es una medida de seguridad, no puentearia ni eliminaria.

Desconexión de alimentación eléctrica • Para desconectar con seguridad la acometida de alimentación eléctrica al equipo, desenchufar todos los cables de alimentación en el panel trasero del equipo, o desenchufar el módulo de alimentación (si fuera independiente), o desenchufar el cable del receptáculo de la pared.

Protección del cables de alimentación • Los cables de alimentación eléctrica se deben instalar en lugares donde no sean pisados ni apretados por objetos que se puedan apoyar sobre ellos.

Reparaciones/mantenimiento • Solicitar siempre los servicios técnicos de personal calificado. En el interior no hay partes a las que el usuario deba acceder. Para evitar riesgo de electrocución, no intentar personalmente la reparación/mantenimiento de este equipo, ya que al abrir o extraer las tapas puede quedar expuesto a voltajes peligrosos u otros riesgos.

Ranuras y aberturas • Si el equipo posee ranuras o orificios en su caja/alojamiento, es para evitar el sobrecalentamiento de componentes internos sensibles. Estas aberturas nunca se deben obstruir con otros objetos.

Batería de litio • Existe riesgo de explosión si esta batería se coloca en la posición incorrecta. Cambiar esta batería únicamente con el mismo tipo (o su equivalente) recomendado por el fabricante. Desachar las baterías usadas siguiendo las instrucciones del fabricante.

FCC Class A Notice

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Note: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance.

Extron's Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

USA, Canada, South America, and Central America:

Extron Electronics
1230 South Lewis Street
Anaheim, CA 92805, USA

Asia:

Extron Electronics, Asia
135 Joo Seng Road, #04-01
PM Industrial Bldg.
Singapore 368363

Europe, Africa, and the Middle East:

Extron Electronics, Europe
Beeldschermweg 6C
3821 AH Amersfoort
The Netherlands

Japan:

Extron Electronics, Japan
Kyodo Building
16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions or non-Extron authorized modification to the product.

If it has been determined that the product is defective, please call Extron and ask for an Applications Engineer at (714) 491-1500 (USA), 31.33.453.4040 (Europe), 65.6383.4400 (Asia), or 81.3.3511.7655 (Japan) to receive an RA# (Return Authorization number). This will begin the repair process as quickly as possible.

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

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About the SW2 VGA DA2 A /AF

Features

Introduction

About this Manual

This manual contains information about the Extron SW2 VGA DA2 A and SW2 VGA DA2 AF switchers and details on how to operate and configure them.

About the SW2 VGA DA2 A /AF

The SW2 VGA DA2 A /AF is a high performance, two-input computer-video switcher with 300 MHz (-3 dB) video bandwidth. It accepts two VGA-UXGA computer-video inputs and two stereo audio inputs. It features two buffered VGA-UXGA outputs and one stereo audio output. With an optional Macintosh/VGA adapter, the SW2 VGA DA2 A /AF can also switch and distribute Macintosh signals.

Front panel buttons, a contact closure controller, or the autoswitching option can be used for input selection.

Features

Autoswitching ability — The SW2 VGA DA2 A /AF can detect active sync signals and automatically switch to the active input.

Rack shelf and furniture mountability — The SW2 VGA DA2 A and SW2 VGA DA2 AF can be mounted on a rack shelf, under a desk or podium with the included hardware, or it can be mounted through a desk or other furniture with optional vertical mounting brackets.

Stereo audio — Unbalanced stereo audio inputs can be output as balanced or unbalanced stereo audio.

SW2 VGA DA2 A /AF

2

Chapter Two

Installation and Operation

Installation and Operation

Installation Overview

To install and set up the SW2 VGA DA2 A /AF for operation, follow these steps:

1 Turn all of the equipment off. Make sure that the video and audio sources (computers, stereos, tape decks, or other devices), the SW2 VGA DA2 A /AF, the output devices (projectors, speakers), and contact closure control device are all turned off and disconnected from the power source.

2 Mount the switcher. See "Mounting the SW2 VGA DA2 A /AF" in this chapter.

3 Attach the cables. See "Cabling" in this chapter.

4 Connect power cords and turn on the devices in the following order: output devices, contact closure controller, SW2 VGA DA2 A /AF switcher, and input devices.

5 Select an input from the front panel buttons or the contact closure controller.

6 The image should now display, and sound should be audible. If not, ensure that all devices are plugged in and receiving power. Check the cabling and make adjustments as needed. Select a different input to check for a picture and sound. See "Troubleshooting" in this chapter.

Mounting the SW2 VGA DA2 A /AF

When mounting the switcher, take cabling and power availability into consideration. Select rack shelf, under-desk (standard) or through-desk (optional) mounting. Follow the appropriate mounting procedure on the following pages.

Rack shelf mounting

1. If feet were installed on the bottom of the switcher, remove them.

2. Place the unit on one half of the 1U (one unit high, one unit wide) rack shelf (part #60-190-01, 60-190-10, 60-190-20, 60-604-01, 60-604-10, or 60-604-20). Align the front of the switcher with the front of the shelf, and align the threaded holes on the bottom of the switcher with the holes in the rack shelf.

3. Attach the switcher to the rack shelf with the two provided 4-40 x 3/16" machine screws. Insert the screws from the underside of the shelf, and securely fasten them into

diagonally opposite corners, as shown in the following illustration.

1U Universal Rack Shelf

Use 2 mounting holes on opposite corners.

(2) 4-40 x 3/16" Screws
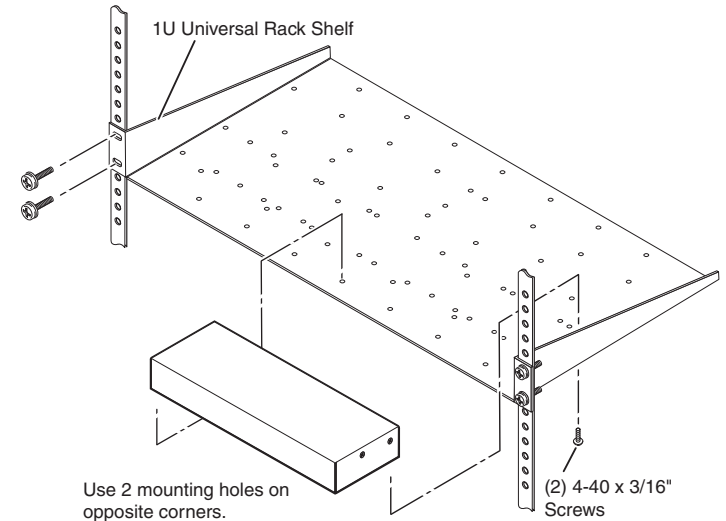
4. Attach the rack shelf to the rack using four 10-32 x ¾" bolts (provided). Insert the bolts through #10 beveled washers, then through the holes in the rack ears and rack, as shown above.

Under-desk mounting

1. Attach the under-desk mounting brackets (part #70-077-01) to the SW2 VGA DA2 A /AF with the four provided machine screws, as shown in the under-desk mounting diagram.

2. Hold the interface with attached brackets against the mounting surface. Use a soft pencil to mark the location of holes for screws on the desk or other furniture.

3. Drill 1/4" (6.4 mm) deep, 3/32" (2 mm) diameter pilot holes in the table or desk at the marked screw locations from the underside/inside (concealed side) of the furniture, where the switcher will be located.

4. Attach the SW2 VGA DA2 A /AF to the desk with the provided wood screws, as shown in the following illustration.
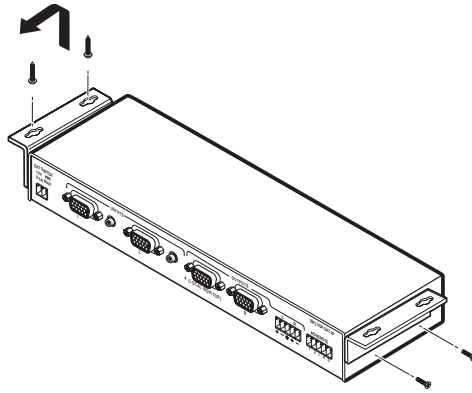
Under-desk mounting

Through-desk mounting

1. Hold the front panel of the switcher against the desk or table. Use a soft pencil to mark the rough-in opening on the desk. The opening, approximately 8.88" x 1.13" (22.5 cm x 2.9 cm) will be slightly larger than the switcher enclosure.

2. Cut out the material from the rough-in area with a jigsaw. Check the opening size by inserting the switcher part way through the hole. if needed, use a saw, file, or sandpaper to enlarge the hole. Smooth the edges of the hole with sandpaper.
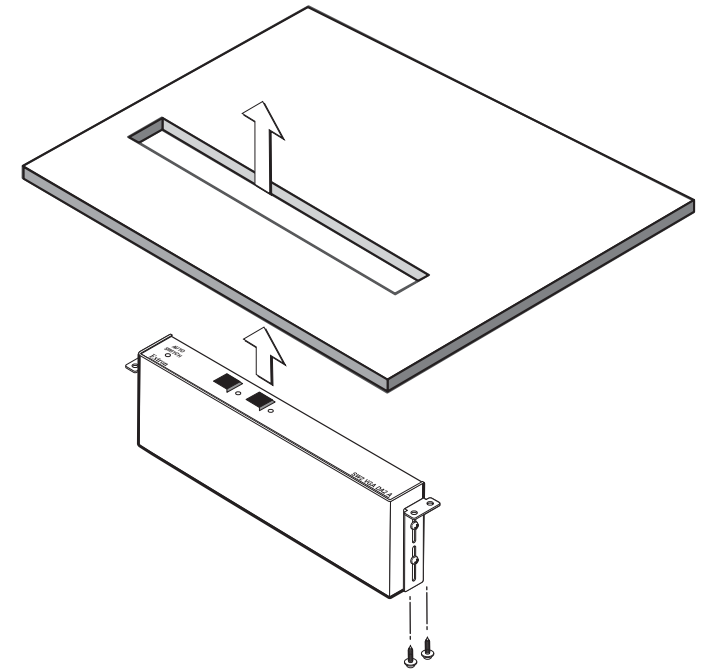
3. Attach the through-desk mounting brackets (part #70-077-02) to the SW2 VGA DA2 A /AF with the four provided machine screws, as shown in the through-desk mounting diagram on the next page.

4. Hold the switcher with attached brackets up against the underside of the desk or table. Use a soft pencil to mark the locations of holes for the screws that will attach the brackets to the desk.

5. Drill ¼" (6 mm) deep, 3/32" (2 mm) diameter pilot holes in the desk or table at the marked screw locations. The holes should be drilled from the underside or inside (concealed side) of the furniture, where the switcher will be located.

6. Attach the switcher to the desk/table with the provided wood screws, as shown in the following illustration.


Through-desk mounting

7. To adjust the height of the switcher within the desk, slightly loosen the screws that attach the brackets to the switcher, adjust the height by sliding the switcher up or down, and retighten the screws.

Front Panel Features
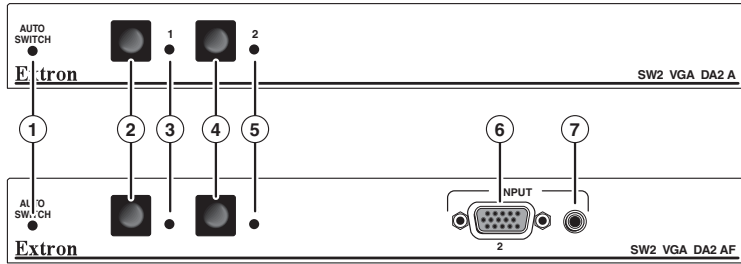
1. **Autoswitching indicator LED** — This LED lights when the autoswitching feature is active.

2. **Input 1 selection switch**

3. **Input 1 indicator LED** — This lights when input 1 is selected.

4. **Input 2 selection switch**

5. **Input 2 indicator LED** — This lights when input 2 is selected.

6. **Input 2 — 15-pin HD female VGA input connector** (**SW2 VGA DA2 AF** only)

7. **Input 2 — 3.5 mm female audio input jack** (**SW2 VGA DA2 AF** only)

Rear Panel Features
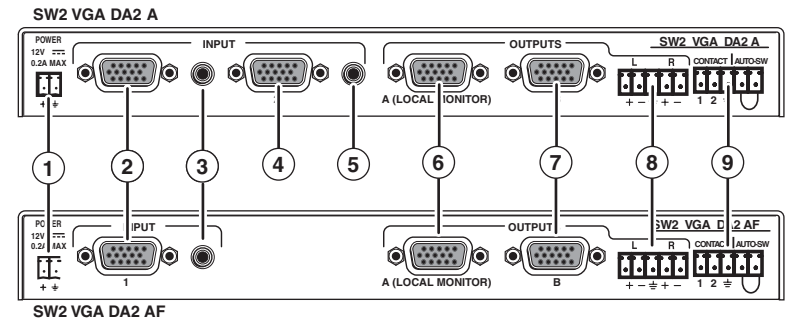
1. **Power supply captive screw connector** — Use this 3.5 mm, 2-pole captive screw connector with a 12 VDC, 0.5 to 1 A, external power supply such as Extron part #70-055-01, which can be connected to any power outlet from 100 VAC to 240 VAC operating at 50 Hz or 60 Hz.
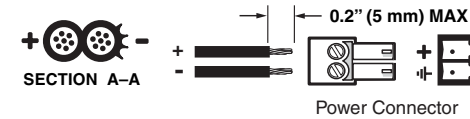
2. **Input 1 — 15-pin HD female VGA input connector**

3. **Input 1 — 3.5 mm female audio input jack**

4. **Input 2 — 15-pin HD female VGA input connector**

   (**SW2 VGA DA2 A** only)

5. **Input 2 — 3.5 mm female audio input jack** (**SW2 VGA DA2 A** only)

6. **Output A (Local Monitor)** — **15-pin HD female VGA connector**

7. **Output B** — **15-pin HD female VGA connector**

8. **Audio output connector** — Balanced or unbalanced audio can be output via this 3.5 mm, 5-pole captive screw connector. The audio output cable should be wired in the following illustration.

Attach cables to the switcher as detailed in the steps below. The diagram in this section shows how the system looks when cabling is finished.

WARNING *Connect the sleeve to ground (GND). Connecting the sleeve to a negative (-) terminal will damage the audio output circuits.*

Unbalanced Output

Tip
See Warning
Sleeve (s)
Tip
See Warning

AUDIO

Balanced Output

Tip
Ring
Sleeve (s)
Tip
Ring
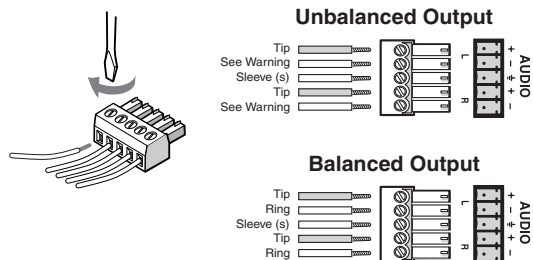
AUDIO

Wiring the audio output connector

(9) **Autoswitching/Contact closure connector** — Connect a contact closure control device to the left three pins of this 3.5 mm, 5-pole captive screw connector.
- **Pin 1** selects input 1 when connected to ground (pin 3).
- **Pin 2** selects input 2 when connected to ground (pin 3).
- **Pin 3** connects to the ground wire (equipment ground).

CONTACT | AUTO-SW

1 2 ⏚

Jumper pins 4 & 5 for autoswitching.

Contact Closure Control

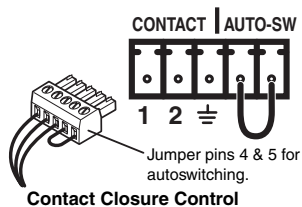• **Pins 4 and 5** if jumpered/shorted together will turn the **autoswitching mode** on. When the autoswitching mode is on, the switcher automatically switches to the input that has an active sync signal.

If both inputs have an active sync signal present, the highest input, input 2, will be used, and the input 2 indicator LED will light. If no active sync signal is present, neither input indicator LED will light.

NOTE *Autoswitching overrides manual input selection. If autoswitching is on, contact closure and front panel input selection will be disabled.*

• If pins 4 and 5 are not connected, **manual switching** is enabled. Selections can be made via the front panel selection switches and the contact closure device.

If no active sync signal is present, the input 2 indicator LED will still light.

1. Attach the computers' video output cables to the switcher via the 15-pin HD female input connectors. If the computers will provide the audio input, VGA with audio combination cables, such as the Extron VGA HRA series (#29-491-01 to #29-491-05), can be used.

2. Connect the cables from the stereo audio sources (computers or other devices such as CD players or tape decks) to the audio input jacks. The audio plug should be wired as shown below.

Tip (L)   Sleeve (Gnd)

Ring (R)
              Tip (L)
                      Sleeve (Gnd)
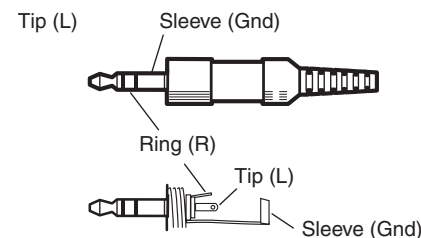
3. Connect VGA cables from the switcher's 15-pin HD female output connectors to the display devices (projectors, monitors).

4. Connect the speakers' or other audio output device's cable to the switcher's audio output captive screw connector.

5. Attach the contact closure device to the left three pins of the 5-pole captive screw Contact/Auto-sw connector.

6. Connect power cords and turn on the devices in the following order: display and audio output devices (projectors, monitors, speakers), contact closure controller, SW2 VGA DA2 A /AF switcher, and input devices (computers, audio sources).

Installation and Operation, cont'd

Extron
SW2 VGA DA2 A
Switcher

Laptop

LBC
Cable

Laptop

Local Monitor   LCD Projector   Audio

Contact Closure
Control
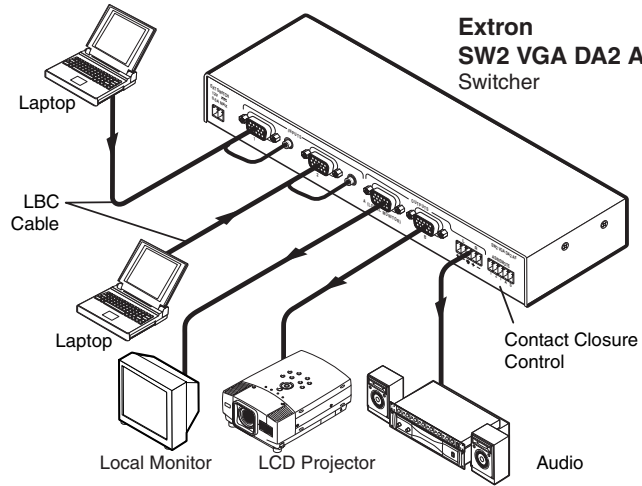
A typical SW2 VGA DA2 A /AF installation and cable setup

Operation

1. Make sure that all the input and output devices and the switcher are powered on.

2. If the switcher is in manual switching mode, select an input from the front panel buttons or by using the contact closure controller.

3. If the switcher is in autoswitching mode (rear panel Contact/Auto-sw pins 4 and 5 are jumpered together), the switcher will automatically select the highest numbered input with an active sync signal.

4. The image should now appear on screen, and sound from the audio source should be audible.

Troubleshooting

If the image does not appear or there is no sound

1. Ensure that all devices are plugged in to a power source.

2. Make sure that each device is receiving power.

    If the switcher is in manual switch mode, one of the input indicator LEDs should light on the front panel of the SW2 VGA DA2 A /AF. If the switcher is in autoswitching mode and there is no active incoming sync signal detected, the input indicator LEDs will not light. However, the autoswitching indicator LED should light when the autoswitching mode is on. If no LED lights, check to make sure the power connector is properly wired and neither conductor is connected to the middle pole.

3. Check the cabling and the audio connector wiring, and make adjustments as needed.

4. Select a different input to check for a display and sound.

A

Appendix

Specifications, Accessories and Part Numbers

Specifications

Video

Gain .... Unity

Bandwidth .... 300 MHz (-3 dB)

Video input

Number/signal type .... 2 VGA-UXGA RGBHV, RGBS, RGsB*, RsGsBs*

Connectors .... 2 VGA female 15-pin HD

Nominal level .... 0.7 Vp-p for RGB

Minimum/maximum levels .... Analog: 0.3 V to 1.5 Vp-p with no offset

Impedance .... 75 ohms

Horizontal frequency .... 15 kHz to 145 kHz

Vertical frequency .... 30 Hz to 170 Hz

Video output

Number/signal type .... 2 buffered VGA-UXGA RGBHV, RGBS, RGsB*, RsGsBs*

Connectors .... 2 VGA 15-pin HD female

Nominal level .... 0.7 Vp-p for RGB

Minimum/maximum levels .... 0.4 V to 1.8 Vp-p (follows input)

Impedance .... 75 ohms

NOTE **RGsB and RsGsBs inputs and outputs will work in manual mode only. Autoswitching requires TTL level sync on pin 13 of the 15-pin HD connector.*

Sync

Input type .... RGBHV, RGBS, RGsB*, RsGsBs*

Output type .... RGBHV, RGBS, RGsB*, RsGsBs*

Input level .... 1.7 V to 5.0 Vp-p

Output level .... TTL: 5.0 Vp-p, unterminated

Input impedance .... 510 ohms

Output impedance .... 50 ohms

Max. input voltage .... 5.0 Vp-p

Max. rise/fall time .... 40 ns

Polarity .... Positive or negative (follows input)

Audio

Gain .... Unbalanced output: 0 dB; balanced output: +6 dB

Frequency response .... 20 Hz to 20 kHz, ±0.05 dB

THD + Noise .... 0.03% @ 1 kHz at nominal level

S/N .... >90 dB at maximum output (unweighted)

Crosstalk .... <-65 dB @ 20 kHz, <-80 dB @ 1 kHz and below 60 Hz

Stereo channel separation .... >80 dB @ 1 kHz

CMRR .... >75 dB @ 20 Hz to 20 kHz

Audio input

Number/signal type .... 2 stereo, unbalanced

Connectors .... (2) 3.5 mm female stereo jacks

Impedance .... >10k ohms, balanced/unbalanced, AC coupled

Nominal level .... -10 dBV (316 mVrms)

Maximum level .... +8 dBV, (balanced or unbalanced) at 1% THD+N

NOTE *0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu*

Audio output

Number/signal type .... 1 stereo, balanced/unbalanced

Connectors .... (1) 3.5 mm captive screw connector, 5 pole

Impedance .... 50 ohms unbalanced, 100 ohms balanced

Gain error .... ±0.1 dB channel to channel

Nominal level .... -2 dBu balanced, -10 dBV (316 mVrms) unbalanced

Maximum level (Hi-Z) .... >+16 dBu, balanced; >+8 dBV, unbalanced at 1% THD+N

Maximum level (600 ohm) .... >+10 dBm, balanced; >+4 dBV, unbalanced at 1% THD+N

Control/remote — switcher

Contact closure .... Momentary, on a 3.5 mm captive screw connector

Contact closure pin configurations 1 = Input #1, 2 = Input #2

General

Power

SW2 VGA DA2 A /AF's external power supply

100 VAC to 240 VAC, 50/60 Hz, external, autoswitchable; to 12 VDC, 1 A power supply, regulated

SW2 VGA DA2 A /AF's power input requirements

12 VDC, 0.2 A

Accessories and Part Numbers, cont'd

Temperature/humidity .... Storage: -40 to +158 °F (-40 to +70 °C) /
10% to 90%, noncondensing
Operating: +32 to +122 °F (0 to +50 °C) /
10% to 90%, noncondensing

Rack mount

SW2 VGA DA2 A / AF .... Yes, with optional 1U rack shelf,
part #60-190-01 or 60-604-01;
or 6" deep rack shelf, part #60-190-10 or
60-604-10 ; or VersaTools® rack shelf, part
#60-190-20 or 60-604-20.
Also furniture mountable with included
brackets (#70-077-01) or attachable to a
projector mount with optional
kit #70-077-04.

Enclosure type .... Metal

Enclosure dimensions

SW2 VGA DA2 A / AF .... 1.0" H x 8.75" W x 3.0" D
2.5 cm H x 22.2 cm W x 7.6 cm D
(Depth excludes connectors.)

Product weight

SW2 VGA DA2 A / AF .... 1.1 lbs (0.5 kg)

Shipping weight

SW2 VGA DA2 A / AF .... 4 lbs (2 kg)

Vibration .... ISTA 1A in carton (International Safe
Transit Association)

Listings .... UL, CUL

Compliances .... CE, FCC Class A, VCCI, AS/NZS, ICES

MTBF .... 30,000 hours

Warranty .... 3 years parts and labor

Included Parts

These items are included in each order for an SW2 VGA DA2 A or SW2 VGA DA2 AF:

Included parts	Part number
SW2 VGA DA2 A	60-297-11
or SW2 VGA DA2 AF	60-297-12
Under-desk mounting bracket kit	70-077-01
12 VDC, 1 A external power supply	70-055-01
3.5 mm, 2-pole captive screw power connector	
3.5 mm, 5-pole captive screw connectors	

Accessories

Accessories	Part number
Through-desk mounting bracket kit	70-077-02
Universal rack shelf	60-190-01, 60-604-01
6" deep rack shelf	60-190-10, 60-604-10
VersaTools rack shelf	60-190-20, 60-604-20

Cables

Male-to-male VGA with audio cables	Part number
VGA 3' MHRA	26-490-01
VGA 6' MHRA	26-490-02
VGA 12' MHRA	26-490-03
VGA 25' MHRA	26-490-04
VGA 50' MHRA	26-490-08

Cables, continued

Male-to-female VGA with audio cables	Part number
VGA 3' MHRA	26-491-01
VGA 6' MHRA	26-491-02
VGA 12' MHRA	26-491-03
VGA 25' MHRA	26-491-04
VGA 50' MHRA	26-491-08

Adapters

Adapters	Part number
Mac/VGA adapter	26-340-01
Mac HV/VGA adapter	26-340-02
SY-VGA/XGA-6' (15-pin HD VGA male to 5 BNC male)	26-173-01

Accessories and Part Numbers, cont'd